

Forest Certification Work Instruction
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**Work Instruction Title:** 1.6 Forest Management Unit Analyses**Work Area Group:** 1 – Plan, Monitor, and Review

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**Purpose:** Develop and use GIS layers, maps and tabular data to link compartment information and stand-level decisions to broader FMU landscape issues, including forest type acreage and age class trends.

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**Work Instruction:**

1. FMU maps and tables will be developed through GIS analysis by the Forest Certification Resource Analyst. They will be used in the Compartment Review process and displayed on FMU web pages.
  - A. The maps and tables to be developed are based on the following items that are currently covered in Compartment Review Summaries:
    - i. Soil and Topography
    - ii. Ownership patterns, development, and land use in and around the compartment
    - iii. Unique, natural features
    - iv. Archeological, Historical and Cultural features
    - v. Special management designations or considerations
    - vi. Watershed and fisheries considerations
    - vii. Wildlife Considerations
    - viii. Mineral resource and development concerns and/or restrictions
    - ix. Vehicle access
    - x. Survey needs
    - xi. Recreational facilities and opportunities
    - xii. Fire protection

In addition to these existing Compartment Review Summary categories, maps and information will be developed pertaining to forest health concerns, regeneration activities, socioeconomic data, and forest type trends. The FMU information will be available and reviewed as appropriate throughout the Compartment Review decision-making process.

B. Where possible, the FMU analyses will be prepared within the IFMAP GIS environment to enable ongoing refinement and integration with our future GIS-based inventory system. The Resource Analyst will work with the IFMAP Inventory Technical Group to assure this integration occurs. FMU analysis information will be reviewed by FMFM Planners, WLD Ecologists and Biologists, FMU staff and the FMFM Webmaster. The Silviculture and Regeneration team will review FMU analyses pertaining to forest types, treatments, and projections based upon prescriptions. Unit Managers will approve FMU web site postings

FMU information will be sent out as it is completed. To enable access and comparisons across FMUs, initially, all products will be posted on a share drive, pushed out to FMU servers (or burned onto CDs when requested), and incorporated into IFMAP. Descriptions of the analysis (data layers and methodology) need to accompany the products. Layers and training for their use will be made available to FMU staff.

The Certification Resource Analyst will maintain the data layers, notify Units, Planners, Ecologists, and Timber Management Specialists of updates subsequent to the initial round of analyses, and lead an annual review of the processes and products.

2. FMUs will conduct a pre-inventory review of the next year-of-entry compartments. The FMFM Unit Manager will schedule and coordinate the meeting with the District FMFM Planner and Wildlife Division Ecologist. The review should utilize the above FMU information and other data to put the year-of-entry compartments into a long-term, landscape level perspective. Examples include an analysis of forest type acres and their age classes (or basal area), Special Conservation Areas (see Biodiversity Work Instruction) and considerations, tribal interests, public input, and other broad resource information. Timber Management Specialists will generate and provide major cover type trends and projections of age classes and harvests developed from historical and current inventory and timber sale information. As goals are developed and approved at the ecoregional level or changed at the division level, projections based upon timber treatment prescriptions will be contrasted against such goals.
3. Following the completion of forest inventory data collection, and prior to the pre-review (after post stage 2 meeting in IFMAP), the Timber Management Specialist will develop age class and harvest projections and report preliminary implications of prescriptions for each FMU. Similar to the pre-inventory review, the projections will address what will result if proposed prescriptions are followed. Forest trends will be re-projected prior to posting on the website, and will be available for the compartment review. Subsequent to the compartment review, forest trends are again re-projected if there are any changes.
4. Each Unit is responsible for working with the Division Web Master to develop and maintain their Unit's web page which will contain general statements about the Unit's relative uniqueness, forest activities (e.g. recreational opportunities), history, and/or other social/economic/biological characteristics and links to the FMU information under #1 above. No information will be posted without Unit Review first. Disputes or conflicts with respect to postings will be resolved by the normal chain of command.

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**Scope:** (All State Forest Land and Affected Divisions): ☒ State Forest Land    ☒ Other: Michigan lands other than State-owned  
☒ DNR – FMFM    ☒ DNR – Wildlife    ☒ DNR – Fish    ☒ DNR – Law    ☐ DNR – Parks

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**Responsibility and Role:** (Staff who will implement or supervise this instruction)

Job Title/Division	Role
FMFM Certification Resource Analyst	Identify GIS layers and develop FMU analysis, maps, tabular products and brief narratives corresponding to Compartment Review Summary categories. Distribute to field offices through appropriate means and train personnel in their derivation and use. Assist as requested with posting of information on web pages.
Planning and Inventory Team (FMFM Planners, Inventory Specialist, WLD Ecologists and Biologists, and related Lansing staff)	Review analyses and assist in formatting and training for FMUs and help develop subsequent management review at FMU, District, and State levels. Assist FMUs in interpretation of analyses and any follow-up.

Timber Management Specialists	Develop projections and preliminary implications of prescriptions for FMU.
Silviculture and regeneration team	Review projections and tables pertaining to forest types and future inventories predicated upon current prescriptions.
Stand Examiners, other FMU personnel, WLD Ecologists and Biologists and FMFM Planners	Review new FMU analysis information and any ecoregional planning concerns prior to field exam. Following compilation of prescriptions, consider their implications for future forest conditions (e.g. age class).
FMU representatives	Work with FMFM Webmaster to incorporate and maintain information on web pages.
FMFM Web Master/Liaison	Work with Units and Certification Resource Analyst to develop and manage web pages.
FMU Unit Manager	Assure review of information at FMU level including documentation of considerations and designate FMU staff to assist in the development of web pages incorporating information. Schedule pre-inventory review.
Ecoregional Planning Team and Regional Ecoteam	Monitor FMU operational performance year-to-year with respect to C & I and ecoregional plan. Note successes, discrepancies and new concerns; report to Districts and Divisions. (Most of this work to be done by the Ecoregional Planning Team which reports to Regional Ecoteam for their review.)

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**Training/Skills:** (Those required to accomplish work instruction)

Item:	Brief Description of Skill or Course	Exists/ New
Describe FMU Analyses	Documentation accompanying maps and layers sent to Units	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
On-site, FMU training	FMUs, esp. those to be audited, need to demonstrate knowledge and understanding of analyses (Unit Managers, Stand Examiners, FMFM Planners, Cert. Resource Analyst)	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
Review FMU Analyses	District Specialists need to review the analyses derivation and uses	<input type="checkbox"/> E <input checked="" type="checkbox"/> N
GIS/Analysis Skills	ArcView/ArcInfo	<input checked="" type="checkbox"/> E <input type="checkbox"/> N

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**References:**

- Biodiversity Considerations on State Forest Lands Work Instruction
- Strategic Framework for Sustainable Management of State Forest Land Work Instruction
- Ecoregional Plan Development Work Instruction
- Social Impact Assessment and Public Involvement Processes Work Instruction
- OI Manual Chapter VII, "Compartment Reviews"
- Forest Management Unit Compartment Review Presentation form
- Draft Statewide Forest Management Guidance Document, 5/3/05
- Draft Comp Review Summary Items with GIS Layers Identified and Prioritized document
- Part 525, Statewide Forest Resources Plan, of the Natural Resources and Environmental Protection Act, 1994 PA 451

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**Monitoring:**

- Reporting, monitoring, and analyzing of performance to take place at all 3 levels-FMU, District, and Statewide with subsequent management adaptations at the FMU level.

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**Records:**

- Constructed GIS layers
- Maps, tables and background documents for use by FMU and web postings
- Open house and compartment review meeting notes and comments
- Maps and background documents